

REMARKS

Applicants acknowledge, with appreciation, the Examiner's indication of allowable subject matter in dependent Claims 6 - 7, 9, 10, 15 - 16 and 18, and that these claims would be allowed if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Accordingly, Applicants have rewritten these dependent claims in independent form as new Claims 21 - 25. In addition, dependent Claim 7, which depended upon allowable Claim 6, has been amended to depend upon new Claim 21. Similarly, dependent Claim 16, which dependent upon allowable Claim 15, has been amended to depend upon new Claim 24.

The Examiner has objected to the drawings. The Examiner states, in this regard, that "items 49, 51 and 53" in Figure 3 point to "solid lines with unmarked X's" rather than solid lines marked with X's, as described in the specification. Applicants agree with the Examiner as to this obvious error in the lead lines of these reference characters.

Accordingly, Applicants are submitting herewith corrected drawings marked "Replacement Drawing". As shown in this Replacement Drawing, lead lines from reference characters 49, 51 and 53 now point to solid lines marked with X's.

The Examiner has also objected to the disclosure because on page 12, line 25, of the specification "points 59" should be --points 57-- as correctly shown in Figure 3. Again, Applicants agree with the Examiner as to this obvious error in the specification. Accordingly, page 12, line 25 has been amended to correctly identify this reference. In

addition, certain other amendments have been made to the specification to correct for minor informalities. These amendments include deletion of the term "RX" in line 19 of page 18, as will be discussed hereinafter.

The Examiner has also objected to Claims 1, 12, 19, 20 and 11 because of certain informalities in claim language. In this regard, "the distance values" in new Claims 24 and 25, which claims depend upon Claim 12, have been written as --distance values--, as suggested by the Examiner. The remaining informalities cited by the Examiner appear in claims, such as Claim 11, which by this amendment, have been canceled.

In regard to the Examiner's objections to the term "RX" in Claim 11, Applicants would like to point out that, as the term appears in line 19 of page 18 of the specification, it clearly references the device "active area", as shown in Figure 7. In other words the term "RX" is synonymous with "active area". Since the term is redundant, it has been deleted from line 19 of page 18.

Claims 1 -5, 8, 11 - 14, 17 and 19 - 20 have been rejected under 35 USC 102(e) as being anticipated by Chang (US2004/0153979). In this regard, the Examiner states that Applicants' claimed "predicted layout pattern" is met by Chang's process described in [0034]. Applicants fail to see how the process described by Chang meets Applicants' claim "predicted layout pattern".

As described by Chang, the stored "yield map basis pre-image library includes a set of basis pre-images, where members of the set of basis pre-images comprise yield map data representing an interaction of a respective basis shape and defect models based on defect information, such as a mathematical defect model". Clearly, the yield map data

described by Chang does not provide a “predicted layout pattern”, as taught by Applicants.

In addition, contrary to the Examiner’s assertion, the “computing kernels representing interaction of defect information and the input pattern to give yield mapping”, of Chang does not provide “yield curves”, let alone “yield curves based upon the distance between sampling points at corresponding edge feature positions of said design mask and predicted layout pattern”, (emphasis added) as taught by Applicants. Chang does not sample edge feature positions of a design mask and a predicted layout pattern nor provide yield curves based upon the distance between sampling points of these edge feature positions.

Finally, the “output predicted yield map” of Chang does not act to determine “yield values for edge feature positions of said predicted layout pattern”. In this regard, the output of Chang is a predicted yield map based upon shapes and defect information. It does not provide a “predicted layout pattern” nor “yield values for edge feature positions of said predicted layout pattern”.

In regard to the Examiner’s paragraphs 8 - 10 comments, it should be noted that in Chang the “yield analysis zone” is used to “filter” the “complete device specification... according to the halo to identify positions for yield analysis”. This “filter” clearly does not equate to a “predicted layout pattern”. The “d” of the halo sets the threshold for filtering out patterns or portions for analysis. It does not relate to yield curves based upon the distance between sampling points at corresponding edge feature positions of said design mask and predicted layout pattern”, (emphasis added) nor does it determine yield values for such sampled edge feature positions.

Although Applicants believe that Claims 1 - 5, 8, 11 - 14, 17 and 19 - 20 are clearly allowable over Chang, in order to expedite prosecution as to the claims now considered allowable by the Examiner, Applicants have canceled these rejected claims.

Applicants firmly believe that the case is now clearly in condition for allowance. Accordingly, Applicants respectfully request the Examiner to allow the claims as now presented, and pass the case to issue.

Respectfully submitted,

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